herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropris NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This applies of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. 1. This communication is responsive to 2. The allowed claim(s) is/are 1-14. 3. The drawings filed on 18 August 2003 are accepted by the Examiner. 4. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 1 a) All b) Some* c) None of the: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in 3. Copies of the certified copies of the priority documents have been International Bureau (PCT Rule 17.2(a)). * Certified copies not received: Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communicated below. Failure to timely comply will result in ABANDONMENT of this application than THREE-MONTH PERIOD IS NOT EXTENDABLE. 5. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attas INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why to comply including changes required by the Notice of Draftsperson's Patent Drawing including changes required by the Notice of Draftsperson's Patent Drawing including changes required by the attached Examiner's Amendment / Copaper No./Mail Date Identifying Indicia such as the application number (see 37 CFR 1.84(c)) should be weach sheet. Replacement sheet(s) should be labeled as such in the header according the such sheet. Replacement sheet(s) should be labeled as such in the header according the such sheet. Replacement sheet(s) should be labeled as such in the header according the such sheet. Replacement sheet(s) should be labeled as such in the header according the such sheet. Replacement sheet(s) should be labeled as such in the header according the such sheet. Replacement sheet(s) should be labeled as such in the header according the such sheet.	CLOSED in this application. If not included briate communication will be mailed in due course. The oplication is subject to withdrawal from issue at the inition of the ini
Tan Ho	ver sheet with the correspondence address) CLOSED in this application. If not included priate communication will be mailed in due course. The oplication is subject to withdrawal from issue at the inition. § 119(a)-(d) or (f).
The MAILING DATE of this communication appears on the cover All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) Cherewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropris NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This appliof the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. 1. □ This communication is responsive to 2. ☑ The allowed claim(s) is/are 1-14. 3. ☑ The drawings filed on 18 August 2003 are accepted by the Examiner. 4. □ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 1 a) □ All b) □ Some* c) □ None of the: 1. □ Certified copies of the priority documents have been received. 2. □ Certified copies of the priority documents have been received in 3. □ Copies of the certified copies of the priority documents have been International Bureau (PCT Rule 17.2(a)). * Certified copies not received: Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communicanoted below. Failure to timely comply will result in ABANDONMENT of this application THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 5. □ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the atta INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why tothe complete the priority documents and provided the complete of Draftsperson's Patent Drawing including changes required by the Notice of Draftsperson's Patent Drawing including changes required by the Notice of Draftsperson's Patent Drawing including changes required by the Notice of Draftsperson's Amendment / Company Notice in the provided and paper Notice in the provided Examiner's Amendment / Company Notice in the provided Examiner's Am	ver sheet with the correspondence address) CLOSED in this application. If not included priate communication will be mailed in due course. The oplication is subject to withdrawal from issue at the inition. § 119(a)-(d) or (f).
All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) Cherewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropris NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This appli of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308. 1. This communication is responsive to 2. The allowed claim(s) is/are 1-14. 3. The drawings filed on 18 August 2003 are accepted by the Examiner. 4. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 1 a) All b) Some* c) None of the: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in 3. Copies of the certified copies of the priority documents have been international Bureau (PCT Rule 17.2(a)). * Certified copies not received: Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communica noted below. Failure to timely comply will result in ABANDONMENT of this applic THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 5. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the atta INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why to comply will result in complete the submitted of the complete of the priority document sheets") must be submitted. (a) including changes required by the Notice of Draftsperson's Patent Drawing including changes required by the Notice of Draftsperson's Patent Drawing including changes required by the attached Examiner's Amendment / Company No./Mail Date (b) including changes required by the attached Examiner's Amendment / Company No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be weach sheet. Replacement sheet(s) should be labeled as such in the header according DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGIC	CLOSED in this application. If not included briate communication will be mailed in due course. The oplication is subject to withdrawal from issue at the inition of the ini
2. ☑ The allowed claim(s) is/are 1-14. 3. ☑ The drawings filed on 18 August 2003 are accepted by the Examiner. 4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 1 a) ☐ All b) ☐ Some* c) ☐ None of the: 1. ☐ Certified copies of the priority documents have been received. 2. ☐ Certified copies of the priority documents have been received in 3. ☐ Copies of the certified copies of the priority documents have been International Bureau (PCT Rule 17.2(a)). * Certified copies not received: Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communicated below. Failure to timely comply will result in ABANDONMENT of this applicated below. Failure to timely comply will result in ABANDONMENT of this application. THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attation including changes required by the Notice of Draftsperson's Patent Drawing including changes required by the Notice of Draftsperson's Patent Drawing including changes required by the attached Examiner's Amendment / Copaper No./Mail Date (b) ☐ including changes required by the attached Examiner's Amendment / Copaper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be weach sheet. Replacement sheet(s) should be labeled as such in the header according DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGIC	in Application No
3. The drawings filed on 18 August 2003 are accepted by the Examiner. 4. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 1 a) All b) Some* c) None of the: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in 3. Copies of the certified copies of the priority documents have been International Bureau (PCT Rule 17.2(a)). * Certified copies not received: Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communicated below. Failure to timely comply will result in ABANDONMENT of this applicated below. Failure to timely comply will result in ABANDONMENT of this application THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 5. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attain INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the control of the priority documents have been received. (a) including changes required by the Notice of Draftsperson's Patent Drawing the priority documents have been received. (b) including changes required by the Notice of Draftsperson's Patent Drawing the priority documents have been received.	in Application No
4. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 1 a) All b) Some* c) None of the: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in 3. Copies of the certified copies of the priority documents have been International Bureau (PCT Rule 17.2(a)). * Certified copies not received: Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communicated below. Failure to timely comply will result in ABANDONMENT of this application that THREE-MONTH PERIOD IS NOT EXTENDABLE. 5. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attax INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why to comply including changes required by the Notice of Draftsperson's Patent Drawing including changes required by the Notice of Draftsperson's Patent Drawing including changes required by the attached Examiner's Amendment / Company No./Mail Date (b) Including changes required by the attached Examiner's Amendment / Company No./Mail Date (c) Including changes required by the attached Examiner's Amendment / Company No./Mail Date (d) Including changes required by the attached Examiner's Amendment / Company No./Mail Date (d) Including changes required by the attached Examiner's Amendment / Company No./Mail Date (d) Including changes required by the attached Examiner's Amendment / Company No./Mail Date (e) Including changes required by the attached Examiner's Amendment / Company No./Mail Date (f) DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGIC	in Application No
a) All b) Some* c) None of the: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in 3. Copies of the certified copies of the priority documents have been International Bureau (PCT Rule 17.2(a)). * Certified copies not received: Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communicate noted below. Failure to timely comply will result in ABANDONMENT of this applicated below. Failure to timely comply will result in ABANDONMENT of this applicated below. Failure to ATH OR DECLARATION must be submitted. Note the attained INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) including changes required by the Notice of Draftsperson's Patent Drawiting including changes required by the attached Examiner's Amendment / Corpaper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Corpaper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be weach sheet. Replacement sheet(s) should be labeled as such in the header according DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGIC	in Application No
3. Copies of the certified copies of the priority documents have been International Bureau (PCT Rule 17.2(a)). * Certified copies not received: Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communicated below. Failure to timely comply will result in ABANDONMENT of this applicated below. Failure to timely comply will result in ABANDONMENT of this application THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 5. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attains INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the Control of Correction of Correction (a) including changes required by the Notice of Draftsperson's Patent Drawing including changes required by the Notice of Draftsperson's Patent Drawing including changes required by the attached Examiner's Amendment / Correction of Correct	
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communicated below. Failure to timely comply will result in ABANDONMENT of this application THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 5. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attains INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why to a communication of the communica	
INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why to CORRECTED DRAWINGS (as "replacement sheets") must be submitted. (a) including changes required by the Notice of Draftsperson's Patent Drawing to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Corpaper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be weach sheet. Replacement sheet(s) should be labeled as such in the header according DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGIC	
 (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawin 1) ☐ hereto or 2) ☐ to Paper No./Mail Date (b) ☐ including changes required by the attached Examiner's Amendment / Copaper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be weach sheet. Replacement sheet(s) should be labeled as such in the header according DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGIC 	
1) hereto or 2) to Paper No./Mail Date (b) including changes required by the attached Examiner's Amendment / Copaper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be weach sheet. Replacement sheet(s) should be labeled as such in the header according DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGIC	
(b) ☐ including changes required by the attached Examiner's Amendment / Co Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be we each sheet. Replacement sheet(s) should be labeled as such in the header according. T. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGIC	awing Review (PTO-948) attached
Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be we each sheet. Replacement sheet(s) should be labeled as such in the header according. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGIC	
Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be weach sheet. Replacement sheet(s) should be labeled as such in the header according. The definition of the sheet of t	Comment or in the Office action of
7. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGIC	
	ICAL MATERIAL must be submitted. Note the
Attachment(s) 1. ⊠ Notice of References Cited (PTO-892) 5. □ N	Notice of Informal Patent Application (PTO-152)
2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 6. ☐ In	Interview Summary (PTO-413),
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), 7. ☐ E	Paper No./Mail Date Examiner's Amendment/Comment
Paper No./Mail Date 4. ☐ Examiner's Comment Regarding Requirement for Deposit 8. ⊠ E.	
of Biological Material 9. 🔲 O	Examiner's Statement of Reasons for Allowance

Application/Control Number: 10/642,242

Art Unit: 2821

DETAILED ACTION

Allowable Subject Matter

1. The following is an examiner's statement of reasons for allowance:

Claim 1 recites a dual band linear antenna array comprising four elongate metal plates arranged to form a rectangular array, a first opposing pair of the metal plates is longer than a second opposing pair of the metal plates, wherein the length of the first opposing pair of the metal plates is one quarter wavelength of a first electric wave, and the length of the second opposing pair of the metal plates is one quarter wavelength of a second electric wave, and the first electric wave has a frequency lower than that of the second electric wave.

Claim 8 recites a dual band linear antenna array comprising three elongate metal plates arranged to form an open rectangular array, one of the metal plates is longer than the other two metal plates, wherein the length of the longer metal plate is one quarter wavelength of a first electric wave, and the length of the other two metal plates is one quarter wavelength of a second electric wave, and the first electric wave has a frequency lower than that of the second electric wave.

None of the prior arts shows or suggests this dual band antenna.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Application/Control Number: 10/642,242 Page 3

Art Unit: 2821

2. The patents to Zimmerman, Engargiola et al, Gottl, and Reece et al are cited as of interest showing the antenna device similar to that disclosed.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tan Ho whose telephone number is (571) 272-1822.

The examiner can normally be reached on M-F (8:00AM - 5:00PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

TAN HO
PRIMARY EXAMINER